

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A processing apparatus, comprising:
  - a processing chamber;
  - a microwave oscillator for generating microwaves;
  - an antenna for radiating the microwaves to said processing chamber;
  - a waveguide for introducing the microwaves, which are generated by said microwave oscillator, into said antenna;
  - a load matching device that is disposed on said waveguide and that adjusts an impedance;
  - a wave detector that is disposed on said waveguide and that detects the microwaves reflected from said processing chamber; and
  - a controller for controlling said load matching device to match an impedance of said processing chamber, which is calculated based on the detected microwaves measurement, with an impedance of said microwave oscillator, wherein:
    - said controller comprises a load matching device adjustment calculation unit for calculating an amount of adjustment to which said load matching device should be adjusted in order to match the impedance of said processing chamber with the impedance of said microwave oscillator; and
    - an adjustment signal output unit for transmitting as an adjustment signal a calculated amount of adjustment multiplied by a predetermined value smaller than 1, wherein said load matching device is repeatedly controlled until the

impedance of said processing chamber matches the impedance of said  
microwave oscillator; and

said controller further comprises a plasma detection unit that detects  
generation of plasma in said processing chamber, configured such that if said  
plasma detection unit determines that no plasma is being generated, said  
adjustment signal output unit transmits an amount of adjustment, which said load  
matching device adjustment calculation unit has calculated, as an unmodified  
adjustment signal, or if said plasma detection unit determines that plasma is  
being generated, said adjustment signal output unit transmits as an adjustment  
signal indicating the amount of adjustment, which said load matching device  
adjustment calculation unit has calculated, multiplied by a predetermined value  
smaller than 1.

Claims 2-3. (Cancelled).

4. (Currently amended) A plasma processing apparatus according to claim [[2]]  
1, wherein:

said controller further comprises an adjustment detection unit that detects a  
adjustment position by which said load matching device is adjusted; and

said controller controls said load matching device according to a difference  
between the adjustment signal transmitted from said adjustment signal output unit and  
the signal of the adjustment position.

5. (Original) A plasma processing apparatus according to claim 1, wherein said load matching device has stubs.

Claims 6-8 (Withdrawn).